

Docket: 3816.10
February 15, 2006 (2:37pm)

Remarks

Claims 1-12, 27-29, and 32-37 remain in the application.

The Examiner rejects claims 30 and 31 under 35 U.S.C. §112, ¶2 for indefiniteness.

These apparatus claims have been canceled.

The Examiner has rejected claims 1-3 and 5-7 under 35 U.S.C. §102(b) as being anticipated by Noguchi et al. (U.S. Patent 5,211,761, hereafter Noguchi). This rejection should be withdrawn.

First, the Examiner states that Noguchi's ceramic substrate comprises silicon. However, claim 1 requires a silicon part not a part comprising silicon. A silicon part is well defined in the specification and the ordinary mechanic understands the distinction between the claimed silicon part and Noguchi's ceramic or quartz glass substrate. Applicants are entitled to be their own lexicographer. They distinguish between their silicon members, for example, CVD grown virgin polysilicon and Czochralski silicon described at page 2, lines 19-26 of the filed specification, and silicon-comprising members such as silica and silicon carbide described at page 1, lines 16025.

Secondly and more importantly, claim 1 requires the plasma spraying to be performed across a seam separating two silicon parts. Noguchi plasma sprays onto his substrate 2 and thereafter plasma sprays his silicon layer 3. The silicon layer 3 does not exist at the time of the first plasma spraying so that Noguchi's first plasma spraying cannot spray across a non-existent seam. Noguchi's plasma sprayed layer 2 cannot form a seam between the two layers 1, 3 as the term seam is usually understood but instead forms a material layer of well controlled thickness. Webster's New Collegiate Dictionary defines seam as a "line of junction; a line, groove, ridge, or interstice, formed by or between abutting edges." This definition does not cover a layer on which another layer is then deposited.

In a similar line of reasoning, claim 1 requires the plasma sprayed silicon forms a coating on both of the silicon parts. Noguchi's plasma sprayed silicon layer 2 may form a coating on the substrate 1 but does not form a coating on the after deposited plasma sprayed silicon layer 3. Noguchi's plasma spray silicon layer 2 instead forms a substrate for the coating of the after

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deposited plasma sprayed silicon layer 3. The ordinary mechanic understands the difference between a substrate and a coating.

It is pointed out that Noguchi distinguishes the ceramic substrate of his invention from the silicon substrate of the prior art described at col. 1, lines 18-22.

The Examiner rejects claims 27-29 under 35 U.S.C. §103(a) as being obvious over Niemirowski et al. (U.S. Patent 6,056,123, hereafter Niemirowski) in view of Noguchi. These claim is allowable for the reasons presented for claim 1. Additionally, the combination of Niemirowski and Noguchi is unobvious because of its lack of utility. Noguchi plasma sprays a silicon onto a single preexisting member, for example, Niemirowski's base 2 although no justification is provided for this. Noguchi then somehow affixes added an added layer onto the plasma sprayed layer. It is conceivable that Niemirowski's legs could be inserted into mortise holes covered with plasma spray silicon although there is again no suggestion in the art to do so. Even if this were done, the plasma sprayed layer performs no known function and is not bonded to Niemirowski's leg since it is not sprayed thereon and would need to nearly reach silicon's melting temperature to do so. In which case, Neimirowski's tower sags and possibly melts. It is possible, as suggested by the present inventors, to plasma spray silicon across the seam of Niemirowski's assembled legs and bases. However, Noguchi does not suggest this. Noguchi never plasma sprays across the seam between two in-place members.

Noguchi's teachings about the fabrication of multi-layer thin film solar cells grown on ceramic substrates at relatively low temperature have little or no relevance to the fabrication of Niemirowski's towers for supporting silicon wafers. The two references are neither in same area of endeavor nor address the same problem and are accordingly not combinable.

The Examiner has rejected claim 4 under 35 U.S.C. §103(a) as being obvious over Noguchi in view of Wang et al. (U.S. Patent 6,787,195, hereafter Wang). This claim depends form a claim believed to be in allowable form and therefore will not be separately argued at this time.

The Examiner has indicated that claims 8-13, 32, 33, and 37 would be allowable if rewritten in independent form. Because it is believed the base claims are allowable, they are not

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rewritten at this time.

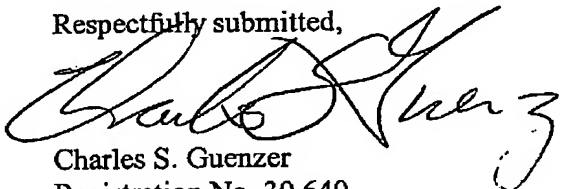
The Examiner has allowed claims 34-36.

Entry of the amendment after final rejection is respectfully requested under 37 CFR 1.116 as canceling claims and putting the application in better form for appeal.

In view of the above amendments and remarks, consideration and allowance of all claims are respectfully requested. If the Examiner believes that a telephone interview would be helpful, he is invited to contact the undersigned attorney at the listed telephone number, which is on California time.

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